

S/N 09/689,136



112w

#1636

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	John F. Engelhardt et al.	Examiner:	Daniel M Sullivan
Serial No.:	09/689,136	Group Art Unit:	1636
Filed:	October 12, 2000	Docket:	875.032US1
Title:	COMPOUNDS AND METHODS TO ENHANCE rAAV TRANSDUCTION		

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(c)(2), Applicants have included the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p). Please charge any additional fees or credit any overpayment to Deposit Account No. 19-0743.

08/02/2005 MBIZUNES 00000013 09689136

01 FC:1806

180.00 OP

Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications are no longer required to be provided to the Office. Notification of this change was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004. Thus, Applicant has not included copies of any Published Applications cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this communication.

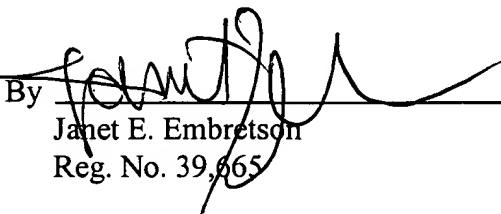
Respectfully submitted,

JOHN F. ENGELHARDT ET AL.

By their Representatives,

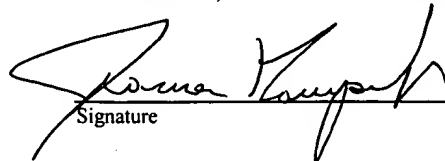
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 373-6959

Date July 29, 2005

By   
Janet E. Embretson  
Reg. No. 39,665

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29<sup>th</sup> day of July, 2005.

JAMES KANYUSIK  
Name

  
Signature



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: John F. Engelhardt et al.

Title: COMPOUNDS AND METHODS TO ENHANCE rAAV TRANSDUCTION

Docket No.: 875.032US1

Serial No.: 09/689,136

Filed: October 12, 2000

Due Date: N/A

Examiner: Daniel M Sullivan

Group Art Unit: 1636

**MS Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

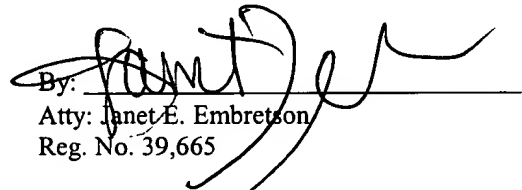
We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ A return postcard.
- ☒ A Supplemental Information Disclosure Statement (2 pgs.), Form 1449 (2 pgs.), and copies of 18 cited documents.
- ☒ A check in the amount of \$180.00 to cover the fee for consideration of Information Disclosure Statement under 1.97(c).

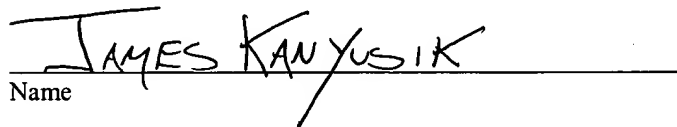
If not provided for in a separate paper filed herewith, Please consider this a **PETITION FOR EXTENSION OF TIME** for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

By:   
Atty: Janet E. Embretson  
Reg. No. 39,665

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29<sup>th</sup> day of July, 2005.

  
Name

  
Signature

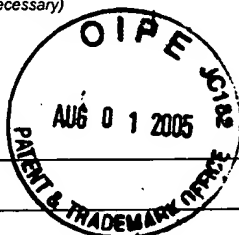
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

Application Number	09/689,136
Filing Date	October 12, 2000
First Named Inventor	Engelhardt, John
Group Art Unit	1636
Examiner Name	Sullivan, Daniel

Sheet 1 of 2

Attorney Docket No: 875.032US1

**US PATENT DOCUMENTS**

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate
	US-2003/0103939 A1	06/05/2003	Engelhardt, J. E., et al.	07/12/2002

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T <sup>2</sup>
	WO-2004/090145A2	10/21/2004	Engelhardt, J. F., et al.	

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		BANK, U., "Review: Peptidases and Peptidase Inhibitors in the Pathogenesis of Diseases", <u>Cellular Peptidases in Immune Functions and Diseases 2</u> , (Edited by Jurgen Langner, et al., Kluwer Academic / Plenum Publishers), (2000), 349-378	
		BRÖTZ, H., "The Lantibiotic Mersacidin Inhibits Peptidoglycan Biosynthesis and the Level of Transglycosylation", <u>Eur. J. Biochem.</u> , 246(1), (1997), 193-199	
		DOUAR, A.-M., et al., "Intracellular Trafficking of Adeno-Associated Virus Vectors: Routing to the Late Endosomal Compartment and Proteasome Degradation", <u>Journal of Virology</u> , 75(4), (2001), 1824-1833	
		DUAN, D., et al., "A New Dual-Vector Approach to Enhance Recombinant Adeno-Associated Virus-Mediated Gene Expression Through Intermolecular cis Activation", <u>Nature Medicine</u> , 6(5), (2000), 595-598	
		DUAN, D., et al., "Enhancement of Muscle Gene Delivery With Pseudotyped Adeno-Associated Virus Type 5 Correlates With Myoblast Differentiation", <u>Journal of Virology</u> , 75(16), (2001), 7662-7671	
		FLOTTE, T. R., et al., "Adeno-Associated Virus Vector Gene Expression Occurs in Nondividing Cells in the Absence of Vector DNA Integration", <u>American Journal of Respiratory Cell and Molecular Biology</u> , 11, (1994), 517-521	
		HANSEN, J., et al., "Adeno-Associated Virus Type 2-Mediated Gene Transfer: Altered Endocytic Processing Enhances Transduction Efficiency in Murine Fibroblasts", <u>Journal of Virology</u> , 75(9), (2001), 4080-4090	
		HANSEN, J., et al., "Impaired Intracellular Trafficking of Adeno-Associated Virus Type 2 Vectors Limits Efficient Transduction of Murine Fibroblasts", <u>Journal of Virology</u> , 74(2), (2000), 992-996	
		PARKER, J. S., et al., "Cellular Uptake and Infection by Canine Parvovirus Involves Rapid Dynamin-Regulated Clathrin-Mediated Endocytosis, Followed by Slower Intracellular Trafficking", <u>Journal of Virology</u> , 74(4), (2000), 1919-1930	
		SANLIOGLU, S., et al., "Endocytosis and Nuclear Trafficking of Adeno-Associated Virus Type 2 Are Controlled by Rac1 and Phosphatidylinositol-3 Kinase Activation", <u>Journal of Virology</u> , 74(19), (2000), 9184-9196	

**EXAMINER**

**DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

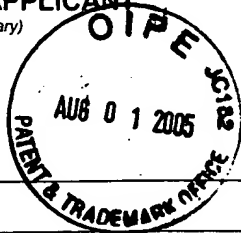
\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 608. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

Application Number	09/689,136
Filing Date	October 12, 2000
First Named Inventor	Engelhardt, John
Group Art Unit	1636
Examiner Name	Sullivan, Daniel

Sheet 2 of 2

Attorney Docket No: 875.032US1

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		SANLIOGLU, S., et al., "Loss of ATM Function Enhances Recombinant Adeno-Associated Virus Transduction and Integration Through Pathways Similar to UV Irradiation", <u>Virology</u> , 268, (2000),68-78	
		SANLIOGLU, S., et al., "Rate Limiting Steps of AAV Transduction and Implications for Human Gene Therapy", <u>Current Gene Therapy</u> , 1, (2001),137-147	
		SANLIOGLU, S., et al., "Two Independent Molecular Pathways for Recombinant Adeno-Associated Virus Genome Conversion Occur After UV-C and E4orf6 Augmentation of Transduction", <u>Human Gene Therapy</u> , 10(4), (1999),591-602	
		SASAKI, T., et al., "Inhibitory Effect of di- and Tripeptidyl Aldehydes on Calpains and Cathepsins", <u>Journal of Enzyme Inhibition</u> , 3(3), (1990),195-201	
		STAUB, O., "Chapter 5 Regulation of ENaC by Interacting Proteins and by Ubiquitination", <u>Current Topics in Membranes</u> , 47 - Amiloride-Sensitive Sodium Channels - Physiology and Functional Diversity, Edited by Dale J. Benos, Academic Press, Publisher, (1999),65-87	
		STAUB, O., "Regulation of Stability and Functional of the Epithelial Na <sup>+</sup> Channel (ENaC) by Ubiquitination", <u>The EMBO Journal</u> , 16(21), (1997),6325-6336	
		STOKES, J. B., "Regulation of rENaC mRNA by Dietary NaCl and Steroids: Organ, Tissue, and Steroid Heterogeneity", <u>American Journal of Physiology, Cell Physiology</u> , 274, (1998),C1699-C1707	

**EXAMINER****DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional) <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached